





# EASY TO USE

Passionately enabling chemists to create a better world since 1910. From A to Z.

ROTARY EVAPORATORS MADE BY IKA.

### **Rotary Evaporators**

/// Modular design and highest precision

# The award-winning design and performance of the IKA rotary evaporators will make a significant difference in your laboratory.

Our RV 8, RV10 digital and control evaporators offer excellent distilling solutions to the demanding work of scientists. Great value, design and technology - all at your convenience!

In our product range, the RV 8 is the entry level option with manual lift and adjustable immersion angle.

Our advanced RV10 evaporators stand out because of their extraordinary features, such as: digital display for heating bath and drive, interval option, soft start and adjustable end point recognition to protect the glassware from breaking. The digital and control models offer RS 232 and RS232/USB interfaces respectively for using labworldsoft<sup>®</sup> and for online firmware updates.



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Find out more about IKA and order our fascinating products online: www.ika.com.

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# **RV 8**/// The smart choice

The RV 8 rotary evaporator comes equipped with an easy to use semimanual lift with integrated safety "lift out function" and is ideal for all standard evaporating applications. Digital displays for both rotation speed and heating bath temperature allow for optimal controlling of all distillation processes. The RV 8 provides a user-friendly operation and distills the required solvent accurately with precise results. Additionally a Woulff bottle is included in all the RV 8 packages.





| PERFORMANCE<br>/// RV 8 V, Ident. No. | 0010002170   RV 8 V-C, Ident. |
|---------------------------------------|-------------------------------|
| RV 8 V                                | with heating bath H           |
| RV 8 V-C                              | with heating bath HE          |
| RV 8 FLEX                             | with heating bath H           |

Rotary Evaporators



. No. 0010002173 | RV 8 FLEX, Ident. No. 0010002166

HB 10 and RV 10.1 set of glassware, vertical

IB 10 and RV 10.10 set of glassware, vertical, coated

HB 10, incl. Woulff bottle

### **RV 8** /// RV 8 in detail



### OVERVIEW OF COMPONENTS

- 1 vertical glassware (other options available)
- 2 various flask sizes
- **3** vacuum connection plus Woulff bottle;
- 4 two displays for optimal view
- 5 heating bath can be used separately
- 6 ergonomic carrying handles on heating bath; can be **11** vapor tube held in plastic sleeves moved by 120 mm to accommodate different flasks
- 7 motorized height-adjustable lift;

lift raised automatically in case of power outage

- 8 choice of angle 9 black and white display
- **10** locking mechanism red for unlocked state
- of vapor tube
- to prevent sticking
- **12** solvent resistant PTFE seal for long-term use

### SEMI-MANUAL MECHANISM

The new RV 8 offers a semi-manual mechanism. The ambidextrous design makes working more convenient and comfortable.



## RV 8 IS THE LATEST IN DISTILLING TECHNOLOGY THAT GIVES YOU MORE OPTIONS TO FIT WITHIN YOUR BUDGET



# **RV 10 digital**

/// Robust and reliable lab companion



/// RV 10 digital V, Ident. No. 0008040300 | RV 10 digital V-C, Ident. No. 0008040400 | RV 10 digital FLEX, Ident. No. 0008040500

| RV 10 digital V    | with heating bath H |
|--------------------|---------------------|
| RV 10 digital V-C  | with heating bath H |
| RV 10 digital FLEX | with heating bath H |
|                    |                     |

Rotary Evaporators

#### BENEFITS

- > universal water/oil heating bath
- > motorized lift with "safety-stop" function
- > RS 232 Interface
- > optimized heating bath volume for fast heat-up
- > ergonomically placed handles on heating bath
- > smooth start
- > left-right interval
- > timer function
- > safety temperature circuits
- > lower-end stop
- > push-off mechanism to loosen tight fitted glassware

HB 10 and RV 10.1 set of glassware, vertical

HB 10 and RV 10.10 set of glassware, vertical, coated

HB 10, incl. Woulff bottle

# **RV 10 digital** /// RV 10 digital in detail



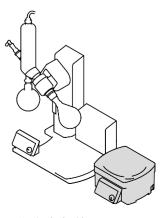
### OVERVIEW OF COMPONENTS

- 1 vertical glassware (other options available)
- 2 various flask sizes
- **3** vacuum connection plus Woulf bottle
- 4 adjustable safety stop
- 5 two displays for optimal view
- 6 heating bath can be used separately; ergonomic carrying handles on heating bath
- 7 can be moved by lift to accommodate different flasks

Rotary Evaporators

| 8 | motorized height-adjustable lift; |
|---|-----------------------------------|
|   | lift raised automatically in      |
|   | case of power outage              |
| 0 | chaica of angle                   |

- 9 choice of angle
- **10** vapor tube held in plastic sleeves to prevent sticking
- **11** solvent resistant PTFE seal for long-term use



Heating bath with ergonomic carrying handles, can also be used separately.

# **RV 10 control**

/// Efficient and safe distillation

With the integrated vacuum controller, a user can work with any vacuum source, or other single vacuum pump.





Adjustable immersion angle and height.

### BENEFITS

- > RV 10 control with advanced technology
- > automatic solvent boiling point detection
- > integrated solvent library (extendible by the customer)
- > integrated vacuum controller
- > USB interface and graphical display
- > direct connection to a speed-controlled pump possible
- > automatic monitoring of heating bath temperature
- > online-firmware update via USB or RS 232 possible
- > complete and customized system solution through combination of a rotary
- evaporator, a vacuum pump and a chiller > push-off mechanism to loosen tight
- fitted glassware
- > 3 different operating modes: manual, auto destillation, user-defined



Rotary Evaporators



# **RV 10 control** packages

/// Best price offers



- > RV 10 control FLEX
- + Woulff bottle

Required water and vacuum hoses are included in the package.

Rotary Evaporators



+ RV 10.1 set of glassware, vertical

RV 10 control V auto package

- > RV 10 control V auto
- + HB 10 heating bath
- + N 920 speed controlled pump
- + RV 10.1 set of glassware, vertical

Ident. No. 0008037800

#### + N 920 speed controlled pump + RV 10.10 set of glassware,

RV 10 control V-C auto package

vertical, coated

> RV 10 control V-C auto

+ HB 10 heating bath

Ident. No. 0008038000

+ HB 10 heating bath

### RV 10 control FLEX package

- > RV 10 control FLEX
- + HB 10 heating bath
- + N 920 speed controlled pump
- + Woulff bottle

Ident. No. 0008038200

## **RV 10 control auto**

/// Automatic distillation

The enhanced RV 10 control is now equipped with our fully automated speed control pump N 920. Additionally, the RV 10 control auto detects the required level of vacuum pressure by detecting the boiling point of the solvent. This feature has some significant benefits over a valve-regulated system.

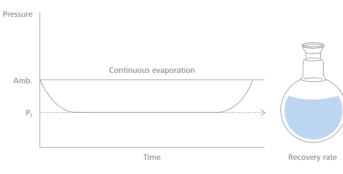
### AUTOMATIC **BOILING POINT** DETECTION

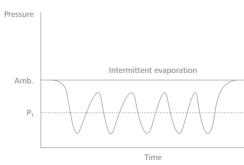


### BENEFITS

- > increased solvent recovery performance up to 100 %
- > automatic boiling point detection
- > speed controlled vacuum pump for precise vacuum level
- > reduced noise level and wearing of pump components
- > reduced process time and increased overall performance

The gentle maintenance of the vacuum level prevents over (or undershooting) of the target vacuum pressure, an occurrence that is often seen with valve-controlled systems. This feature allows for faster, more efficient and safer distilling processes. It also significantly reduces the noise level of the pump due to the motor speed management functionality of the RV 10 control auto. As a result, you save energy and increase the overall performance.





Fully automatic control with pump speed adjustment Gentle and smooth control of a steady vacuum level with RV 10 control auto and speed controlled pump.



Recovery rate

Valve-regulated Typical behavior of pressure when using a valve-controlled system.

Amb. = Ambient Pressure  $P_T = Target pressure$ 

### **RV 10 control auto**

/// An overview



#### OVERVIEW OF COMPONENTS

- 1 high performance vertical cooling condenser (different options available)
- 2 various flask sizes
- 3 adjustable safety stop
- 4 two displays for optimal view
- 5 heating bath can be used separately; ergonomic carrying handles on heating bath
- 6 RS 232 and USB interface
- 7 integrated vacuum controller
- 8 vapor tube held in plastic sleeves to prevent sticking
- **9** solvent resistant PTFE seal for long-term use
- **10** motorized height-adjustable lift raised automatically in case of power outage

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Rotary Evaporators



### HB 10 /// Universal heating bath

IKA heating baths are developed with a strong focus on safety. All baths are equipped with a double jacket to protect against burns and a safety temperature monitor keeps the bath from over heating. After turning on the unit every time, the safety functions are automatically checked.

### BENEFITS

Setting tolerance

Temperature display

Deviation (3 | H<sub>2</sub>O, +90 °C)

- > lock-function prevents accidental change of bath settings
- > dry run control stops heating the bath if the liquid level has dropped
- > adjustable safety temperature; user can set temperature limits.
- > the heating bath can be used as a stand-alone unit for other applications
- > ergonomic and well positioned handles for safe transport

±1 K

±1 K

digital

- > optimized bath volume guarantees fast heat-up time
- > 3 operating modes to operate safer

# TECHNICAL DATA /// HB 10, Ident. No. 0004068000 Heat output 1,300 W Temperature range RT to + 180 °C

| /     | Volume                               | 3                      |
|-------|--------------------------------------|------------------------|
| 80 °C | Safety class acc. to DIN 12877       | 21                     |
|       | Adjustable safety circuit min / max  | +50 °C/+190 °C         |
|       | Material                             | stainless steel 1.4301 |
|       | Weight                               | 3 kg                   |
|       | Dimensions (W $\times$ D $\times$ H) | 290 × 190 × 265 mm     |



Rotary Evaporators

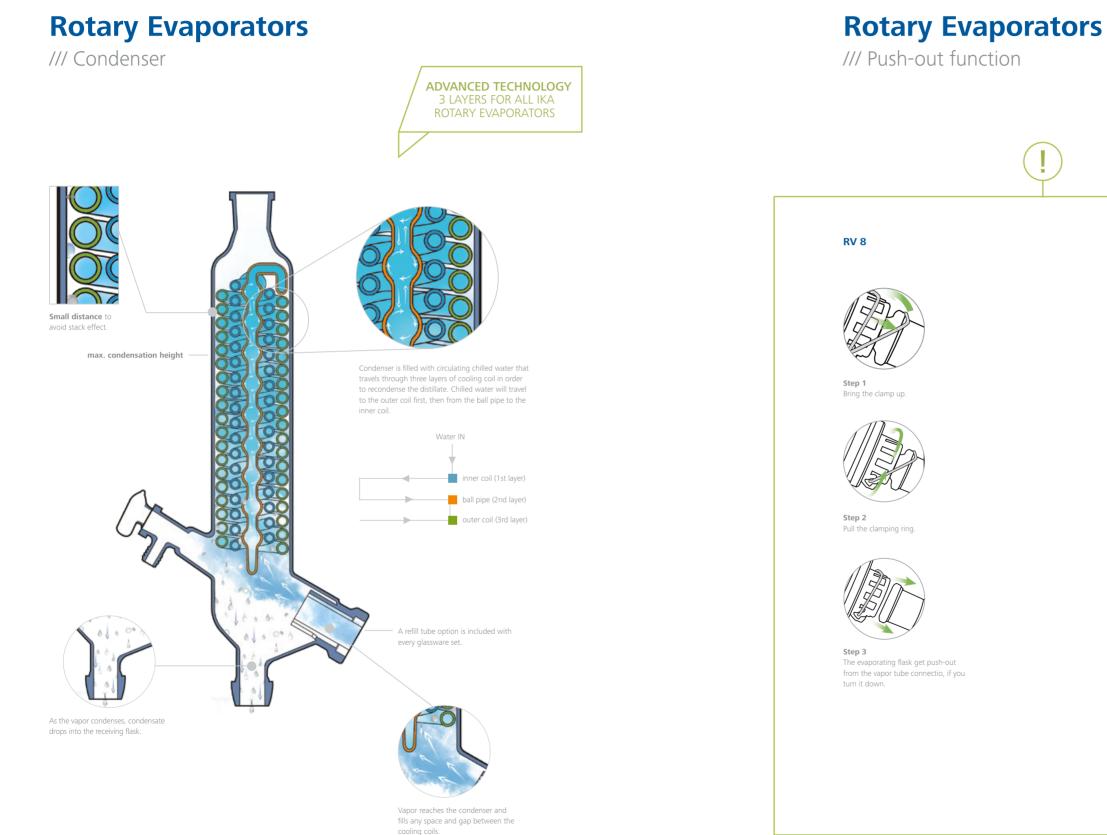


**Integrated handles** to safely move heating bath

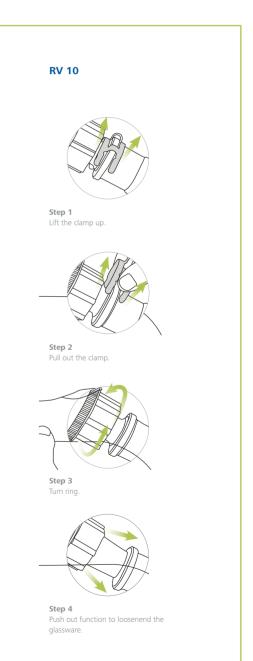
**LCD digital** display for precise temperature setting.

Integrated **ergonomic** carrying handles.

**Key-button** with locking function for the heating bath temperature.



Rotary Evaporators



# **Technical data**

/// Rotary Evaporators

|                 | RV 8      | RV 10 digital  | RV 10 control       |  |  |  |
|-----------------|-----------|--|---------------------|--|--|--|
| Packages        |           |  |                     |  |  |  |
|                 | RV 8 V    | RV 10 digital V  | RV 10 control V*    |  |  |  |
|                 | RV 8 V-C  | RV 10 digital V-C  | RV 10 control V-C*  |  |  |  |
|                 | RV 8 FLEX | RV 10 digital FLEX   | RV 10 control FLEX* |  |  |  |
| Cooler type     |           | V = vertical   |                     |  |  |  |
|                 |           | V–C = vertical-coated  |                     |  |  |  |
|                 | FLEX =    | FLEX = incl. Woulff bottle, glassware to be ordered separately |                     |  |  |  |
|                 |           |  |                     |  |  |  |
| Cooling surface |           |  |                     |  |  |  |

\* RV 10.4002 magnetic valve now included with delivery of every RV 10 control V, V-C and FLEX package.

| IDENT. NO.                |            |                          |
|---------------------------|------------|--------------------------|
| RV 8                      |            | RV 10 control            |
| RV 8 V package            | 0008033800 | RV 10 control V package  |
| RV 8 V-C package          | 0010002173 | RV 10 control V-C packag |
| RV 8 FLEX package         | 0010002166 | RV 10 control FLEX packa |
|                           |            | RV 10 control V auto pac |
| RV 10 digital             |            | RV 10 control V-C auto p |
| RV 10 digital V package   | 0008040300 | RV 10 control FLEX auto  |
| RV 10 digital V-C package | 0008040400 |                          |

0008040500

| RV 10 control                   |            |
|---------------------------------|------------|
| RV 10 control V package         | 0008037700 |
| RV 10 control V-C package       | 0008037900 |
| RV 10 control FLEX package      | 0008038100 |
| RV 10 control V auto package    | 0008037800 |
| RV 10 control V-C auto package  | 0008038000 |
| RV 10 control FLEX auto package | 0008038200 |

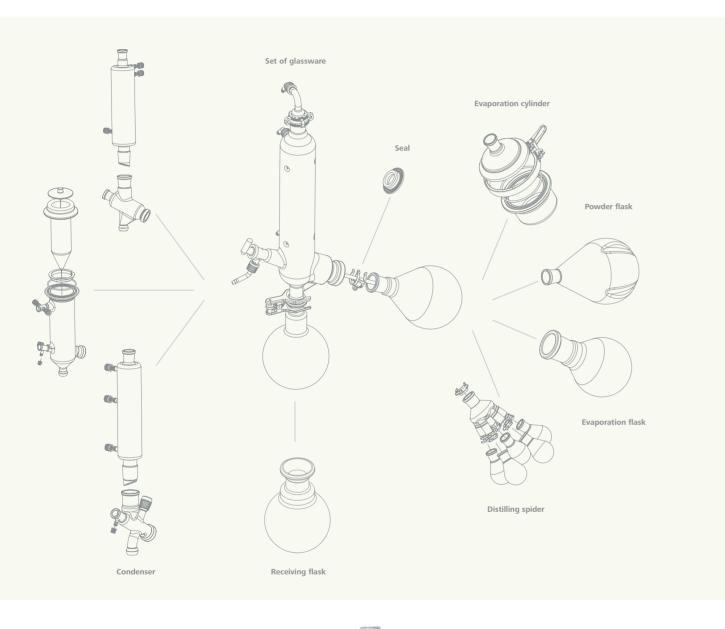
|  | RV 8   | RV 10 digital                               | RV 10 control                                 |
|--|--|---|---|
| Drive  |  |   |   |
| Motor type   | brushless DC drive motor                     | brushless DC drive motor                    | brushless DC drive moto                       |
| Motor rating input   | 50 W   | 50 W  | 50 W  |
| Speed range  | 5 – 300 rpm                                  | 20 – 280 rpm                                | 20 – 280 rpm                                  |
| Speed display  | digital                                      | digital                                     | digital                                       |
| Clockwise and counter-clockwise  | no   | yes   | yes   |
| Soft start   | yes  | yes   | yes   |
| Head angle adjustable  | 0 to 45°                                     | 0 to 45°                                    | 0 to 45°                                      |
| Stroke displacement  | 130 mm, manual                               | 140 mm, motorized                           | 140 mm, motorized                             |
| Setting of lower end stop  | ng of lower end stop no                      |   | 60 mm, contact free                           |
| Vacuum controller  | optional                                     | optional                                    | integrated                                    |
|  | 31   | 31  | 31  |
| Bath volume max.   | 3  | 3   | 3   |
| Temperature range  | RT to +180°C                                 | RT to +180 °C                               | RT to +180 °C                                 |
| Heating power  | 1,300 W                                      | 1,300 W                                     | 1,300 W                                       |
| Temperature display  | digital                                      | digital                                     | digital                                       |
| Setting accuracy   | 1°C  | 1 °C  | 1°C   |
|  | ±1K  |   |   |
| Control Deviation  | ±   N  | ±1 K  | ± 1 K   |
| Control Deviation General data   | ± 1 K  | ± 1 K                                       | ±1K   |
| General data   | ± + K<br>510 × 345 × 490 mm                  | ± 1 K<br>530 × 410 × 430 mm                 | ± 1 K<br>530 × 410 × 430 mm                   |
| General data<br>Dimensions (W × D × H)<br>Weight of the drive incl.  |  |   |   |
| General data<br>Dimensions (W × D × H)<br>Weight of the drive incl.<br>heating bath without glass parts                                    | 510 × 345 × 490 mm                           | 530 × 410 × 430 mm                          | 530 × 410 × 430 mm                            |
| General data<br>Dimensions (W × D × H)<br>Weight of the drive incl.<br>heating bath without glass parts<br>Permissible ambient temperature | 510 × 345 × 490 mm<br>17.2 kg                | 530 × 410 × 430 mm<br>20 kg                 | 530 × 410 × 430 mm<br>21.5 kg                 |
|  | 510 × 345 × 490 mm<br>17.2 kg<br>+5 to +40°C | 530 × 410 × 430 mm<br>20 kg<br>+5 to +40 °C | 530 × 410 × 430 mm<br>21.5 kg<br>+5 to +40 °C |

RV 10 digital FLEX package

V: Rotary evaporator with set of vertical glassware.
 V-C: Rotary evaporator with set of vertical coated glassware.
 FLEX: Rotary evaporator without any glassware (condenser, evaporation and receiving flask); either use pre-existing IKA glassware or order separately.

### Accessories

/// Rotary Evaporators





#### 1 | RV 10.1 SET OF GLASSWARE, VERTICAL

Compact vertical condenser for all standard distillations. Glassware included in all packages, except FLEX

| <b>Details</b><br>RV 10.1 vertical, Iden<br>RV 10.10 vertical-coa | t. No. 0003655300<br>ted, Ident. No. 0003755400 |
|---|---|
| Condenser type  | vertical  |
| Cooling surface   | 1,500 cm <sup>2</sup>                           |
|   |   |

#### 3 | RV 10.3 VERTICAL-INTENSIVE CONDENSER WITH MANIFOLD

Vertical-intensive condenser with double jacket and manifold for particularly efficient condensation.

| D |  |  |  |
|---|--|--|--|
|   |  |  |  |

| RV 10.3, Ident. No. 0003741000         |  |
|--|--|
| RV 10.30 coated, Ident. No. 0003741100 |  |

| Condenser type  | vertical-intensive    |
|-----------------|-----------------------|
| Cooling surface | 1,400 cm <sup>2</sup> |

#### 5 | RV 10.5 VERTICAL CONDENSER WITH MANIFOLD AND CUT-OFF VALVE FOR REFLUX DISTILLATION

The solvent to be distilled can be continuously fed through the PTFE inlet tube. Requires RV 10.74 Vapor tube short.

| Details |                |                   |   |
|---------|----------------|-------------------|---|
| RV 10.5 | , Ident. No. C | 003743000         |   |
| RV 10.5 | 0 coated. Ide  | nt. No. 000374310 | 0 |

| Condenser type  | vertical              |  |
|-----------------|-----------------------|--|
| Cooling surface | 1,200 cm <sup>2</sup> |  |

#### 7 | RV 10.70 VAPOR TUBE NS 29/32

Made of high quality borosilicate glass. For all glassware. Included with each RV 10 package.

| RV 10.70, Ident. No. 0003812200 |
|---------------------------------|

#### 2 | RV 10.2 SET OF GLASSWARE, DIAGONAL

Diagonal condenser for all standard distillations.

#### Details

RV 10.2 diagonal, Ident. No. 0003755300 RV 10.20 vertical-coated, Ident. No. 0003755500

| Condenser type  | diagonal              |
|-----------------|-----------------------|
| Cooling surface | 1,500 cm <sup>2</sup> |

#### 4 | RV 10.4 DRY ICE CONDENSER

Dry ice condenser for distilling low-boiling point solvents. Not possible with autodistillation mode on RV 10 control.

#### Details

 RV 10.4, Ident. No. 0003742000

 RV 10.40, Ident. No. 0003742100

 Condenser type
 dry ice condenser

 Cooling surface
 620 cm²

#### 6 | RV 10.6 VERTICAL-INTENSIVE CONDENSER WITH MANIFOLD AND CUT-OFF VALVE FOR REFLUX DISTILLATION

The manifold features a condensate cover and an outlet channel which prevent the condensate from coming into contact with the seal. *Requires RV 10.74 Vapor tube short.* 

Details

| RV 10.6, Ident. No. 0003744000         |
|--|
| RV 10.60 coated, Ident. No. 0003744100 |
|  |

| Condenser type  | vertical-intensive    |
|-----------------|-----------------------|
| Cooling surface | 1,400 cm <sup>2</sup> |

#### 8 | RV 10.74 VAPOR TUBE SHORT NS 29/32

Made of high quality borosilicate glass. For vertical condensers RV 10.5 and RV 10.6.

| <b>Details</b><br>RV 10.74, Ident. | No. 0003971700     |  |
|------------------------------------|--------------------|--|
| Material                           | borosilicate glass |  |

#### 1 | HB 10.1 SHIELD FOR HEATING BATH HB 10

For optimal protection against splashes of hot liquid.

### Details

HB 10.1, Ident. No. 0003641800

Material polycarbonate

#### 2 HB 10.2 PROTECTION COVER FOR HEATING BATH

Essential accessory if it is not possible to work in an extractor hood. Protects the user against splashes of hot liquid and in the event of the evaporator flask breaking.

Details HB 10.2, Ident. No. 0003641000

Material polycarbonate

4 | EVAPORATION CYLINDER NS 29/32

Makes retrieval of viscous substances easy.

RV 10.400, 500 ml, Ident. No. 0003738800

RV 10.401, 1,500 ml, Ident. No. 0003738900

500, 1,500

Accessories required when using RV 10.500 Foam brake.

Note: Allows the heating bath to be moved 150 mm

horizontally. Accessories required when using the

borosilicate glass

Details

Material

Volume (in ml)

#### 3 | POWDER FLASK NS 29/32

Optimizes powder drying applications by avoiding the accumulation of powder on the walls of the flask.

#### Details

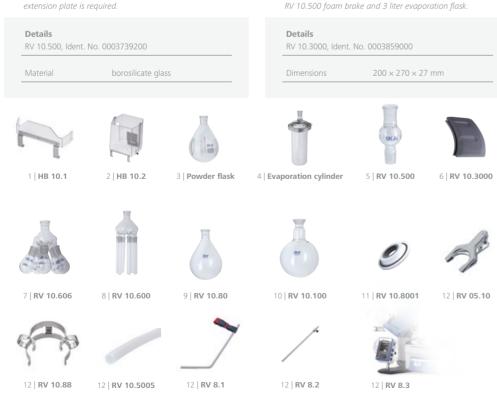
RV 10.300, 500 ml, Ident. No. 0003738200 RV 10.301, 1,000 ml, Ident. No. 0003738300 RV 10.302, 2,000 ml, Ident. No. 0003738400

Volume (in ml)500, 1,000, 2,000Materialborosilicate glass

## 6 | RV 10.3000 EXTENSION PLATE

#### 5 | RV 10.500 FOAM BRAKE NS 29/32

The rising foam produces bursts in the glass ball extension. This stops foam from entering the receiving flask. Note: When using a 3 liter evaporation flask, RV 10.3000 extension plate is required.



#### 7 | DISTILLING SPIDER WITH 5 FLASKS NS 29/32

For simultaneous distillation in 5 evaporation flasks, included with purchase.

# Details RV 10.606, 50 ml, Ident. No. 0003740800 RV 10.607, 100 ml, Ident. No. 0003740900 Volume (in ml) 50, 100

borosilicate glass

### 9 EVAPORATION FLASK NS 29/32

The flask, which is made of high quality borosilicate glass, is available in seven different sizes.

#### Details

Material

RV 10.80, 50 ml, Ident. No. 0003740100 RV 10.81, 100 ml, Ident. No. 0003740200 RV 10.82, 250 ml, Ident. No. 0003740300 RV 10.83, 500 ml, Ident. No. 0003740400 RV 10.84, 1,000 ml, Ident. No. 0003740500 RV 10.85, 2,000 ml, Ident. No. 0003740700

RV 10.800 coated, 50 ml, Ident. No. 0020005330\* RV 10.810 coated, 100 ml, Ident. No. 0020005331\* RV 10.820 coated, 250 ml, Ident. No. 0020005333\* RV 10.830 coated, 500 ml, Ident. No. 0020005333\* RV 10.840 coated, 1,000 ml, Ident. No. 0020005334\* RV 10.850 coated, 2,000 ml, Ident. No. 0020005335\*

| Volume (in ml) | 50, 100, 250, 500,<br>1,000, 2,000, 3,000 |
|----------------|---|
| Material       | borosilicate glass                        |

#### 11 | **RV 10.8001 SEAL** New airtight lip-seal from PTFE

with a built-in stainless steel spring.

| <b>Details</b><br>RV 10.8001, Ider | nt. No. 0003907000    |
|------------------------------------|-----------------------|
| Material                           | PTFE, stainless steel |

#### 8 | DISTILLING SPIDER WITH DISTILLING SLEEVES NS 29/32

For simultaneous distillation in 6, 12 or 20 distilling sleeves, included with purchase.

#### Details

RV 10.600, 6 distilling sleeves, Ident. No. 0003739400 RV 10.601, 12 distilling sleeves, Ident. No. 0003739500 RV 10.602, 20 distilling sleeves, Ident. No. 0003739600 RV 10.610, 20 ml, Ident. No. 0003919400

Material

borosilicate glass

#### 10 | RECEIVING FLASK KS 35/20

The flask, which is made of high quality borosilicate glass, is available in six different sizes, either coated or uncoated.

#### Details

RV 10.100, 100 ml, Ident. No. 0003742200 RV 10.101, 250 ml, Ident. No. 0003742300 RV 10.102, 500 ml, Ident. No. 0003742400 RV 10.103, 1,000 ml, Ident. No. 0003742500 RV 10.104, 2,000 ml, Ident. No. 0003742600 RV 10.105, 3,000 ml, Ident. No. 0003742700

RV 10.200 coated, 100 ml, Ident. No. 0003743200 RV 10.201 coated, 250 ml, Ident. No. 0003743300 RV 10.202 coated, 500 ml, Ident. No. 0003743400 RV 10.203 coated, 1,000 ml, Ident. No. 0003743500 RV 10.204 coated, 2,000 ml, Ident. No. 0003743600 RV 10.205 coated, 3,000 ml, Ident. No. 0003743700

| Volume (in ml) | 100, 250, 500,<br>1,000, 2,000, 3,000 |
|----------------|---------------------------------------|
| Material       | borosilicate glass                    |

\* About the coated evaporating flask the coating could be use if the costumer is workiung with oel and up to an temp. from +180  $^\circ\text{C}.$ 

— Unique to IKA

#### 12 | OTHER ACCESSORIES

Details

RV 05.10 balljoint clamp, Ident. No. 0000736600 RV 10.88 clamp, NS 29, Ident. No. 0003683300 RV 10.5005 hose kit, Ident. No. 0020000552

#### **RV 8 Accessories**

RV 8.1 support pole, Ident. No. 0004438500 RV 8.2 mechanical end stop, Ident. No. 0025001342 RV 8.3 stand pole, Ident. No 0025004707

# Accessories

/// Selection guide

|   | RV 8                              | RV 10 digital   | RV 10 control            |
|---|-----------------------------------|-----------------|--------------------------|
|   |                                   |                 |                          |
| Required accessoriesfor an e  | existing vacuum                   |                 |                          |
| Magnetic valve<br>in-house vacuum system  | × <sup>1)</sup>                   | × <sup>1)</sup> | RV 10.4001               |
| Magnetic valve<br>laboratory vacuum system  | × <sup>1)</sup>                   | ×1)             | RV 10.4002               |
| Pump control<br>including magnetic valve  | × <sup>1)</sup>                   | ×1)             | RV 10.4003               |
|   |                                   |                 |                          |
| Recommended accessories f   | or tap water (faucet) connec      | -tion           | RV 10.5001               |
|   | or tap water (faucet) connec<br>  |                 | RV 10.5001               |
| Choke water valve   | or tap water (faucet) connect<br> |                 |                          |
| Choke water valve<br>Filter   | RV 10.5003                        |                 | RV 10.5002               |
| Choke water valve<br>Filter<br>Pressure regulating valve                              | RV 10.5003                        |                 | RV 10.5002               |
| Choke water valve<br>Filter<br>Pressure regulating valve                              | RV 10.5003                        | RV 10.5003      | RV 10.5002               |
| Choke water valve<br>Filter<br>Pressure regulating valve<br>Supplementary vacuum syst | em                                | RV 10.5003      | RV 10.5002<br>RV 10.5003 |

1) No accessories required for vacuum pump connection (vacuum level must be controlled by external vacuum controller).



**RV 8** 

RV 10 digital

Rotary Evaporators





RV 10 control





#### **RV 10.4001 MAGNETIC VALVE IN-HOUSE VACUUM** Industrial vacuum source for many different in-house

users; usually fixed pipes. Accessory required for an existing vacuum.

| Details<br>RV 10.4001, Ident. No. 0003902600 |            |
|--|------------|
|  |            |
| Power  | 24 V / 9 W |
| Weight                                       | 0.142 kg   |

#### RV 10.4002 MAGNETIC VALVE LABORATORY VACUUM

High quality vacuum valve for an optimum controlled operation. The integrated check valve eliminates external influence on the operating pressure in the vacuum chamber. *Accessory required for an existing vacuum.* 

| <b>Details</b><br>RV 10.4002, Ident. | No. 0003880300 |  |
|--------------------------------------|----------------|--|
| Power                                | 24 V / 6 W     |  |
| Weight                               | 0.142 kg       |  |
| Integrated<br>check valve            | yes            |  |



#### RV 10.4003 PUMP CONTROL INCL. MAGNETIC VALVE

One rotary evaporator at one pump/tabletop operation. The pump only works when vacuum is needed – leading to a savings of up to 90 % of operating time, increased equipment life and reduction of noise. Integrated LED display. Accessory required for an existing vacuum. For non EU countries a plug adapter is required.

| Details<br>RV 10.4003, Ident. No. 0003900200 |                       |  |
|--|-----------------------|--|
| Power<br>magnetic valve                      | 24 V / 6 W            |  |
| Power<br>pump control                        | 100 – 240 V, 50/60 Hz |  |
| Weight                                       | 0.142 kg              |  |

#### RV 10.5002 FILTER

To prevent contamination of the water pipes. With removable filter for easy cleaning. Accessory recommended for tap water connection.

| <b>Details</b><br>RV 10.5002, Ident. No. 0003903800 |             |  |
|---|-------------|--|
| Mesh thickness                                      | 100 µm      |  |
| Connection<br>diameter                              | 10 mm       |  |
| Pressure  | max. 11 bar |  |
|   |             |  |







#### RV 10.5001 CHOKE WATER VALVE

The integrated magnetic valve closes/opens the water circuit during automatic distillation. Accessory recommended for tap water connection.

| Details<br>RV 10.5001, Ident. No. 0003902700 |            |
|--|------------|
| Power  | 24 V / 6 W |
| Connection<br>diameter                       | 10 mm      |
| Integrated fine adjustment                   | yes        |
| Weight                                       | 0.142 kg   |

#### RV 10.5003 PRESSURE REGULATING VALVE

For adjusting the cooling water pressure when connecting to a tap water system. Accessory recommended for tap water connection.

| Details<br>RV 10.5003, Ident. No. | 0003907100        |  |
|-----------------------------------|-------------------|--|
| Mesh thickness                    | 100 µm            |  |
| Pressure                          | max. input 25 bar |  |

### Accessoires

/// Rotary Evaporators



| MVP | 10 | BASIC |
|-----|----|-------|

For dry, oil-free applications in the low vacuum range.

| MVP 10 basic, Ident. No. 000398000 |                        |
|------------------------------------|------------------------|
| Cylinder                           | 2                      |
| Flow rate                          | 28 l / min             |
| Ultimate vacuum                    | 7 mbar                 |
| Pumping speed                      | 1,8 m³/h               |
| Operating pressure                 | 1 bar                  |
| Weight                             | 11.5 kg                |
| Dimensions                         | 245 × 320 × 155 mm     |
| Permissible ambient temperature    | +10 to +40 °C          |
| Motor protection                   | IP 54                  |
| Voltage / Frequency                | 220 – 240 V / 50/60 Hz |

Y connector + 1m vacuum tube is included in the scope of delivery.



#### RC 2 BASIC | CONTROL

Refrigerated circulator designed for precise temperature control and cooling.

| <b>Details</b><br>RC 2 basic, Ident. No. 0004171000<br>RC 2 control, Ident. No. 0004173000 | iii                    |
|--|------------------------|
| Temperature range  | -20 °C to RT           |
| Temperature display  | LED   TFT              |
| Temperature stability DIN 12876  | ± 0.1 K   ± 0.05 K     |
| Cooling capacity at +20 °C   | 400 W                  |
| Dimensions   | 220 × 475 × 525 mm     |
| Permissible ambient temperature  | +5 to +32 °C           |
| Motor protection   | IP 21                  |
| Voltage / Frequency  | 220 – 240 V / 50/60 Hz |







#### VC 10

- manual and program mode
- > cleaning function for long valve lifecycles
- ceramic pressure sensor with outstanding resistance to chemicals
- > programmable function for up to 10 scenarios
- An integrated ventilation valve enables simple pressure equalization and aeration with inert gas on process completion. In addition, the VENT short key button allows pressure equalization during an operation run.

Ident. No. 0020004893

Y connector + 1m vacuum tube is included in the scope of delivery.

#### VC 10 VACUUM CONTROLER

Universal vacuum controller for multiple vacuum sources.

| <b>Details</b><br>VC 10, Ident. No. 0020004893 |                    |
|--|--------------------|
| Vacuum sensor                                  | Ceramic, $AI_2O_3$ |
| Measuring range                                | 1 – 1,100 mbar     |
| Measuring accuracy                             | ± 1 mbar           |
| Hose connections                               | ID 8 mm            |
| Housing material                               | Plastic            |
| Dimensions (W $\times$ H $\times$ D)           | 95 × 110 × 150 mm  |
| Interface                                      | USB + RS 232       |
| Mains voltage                                  | 100-240 V          |
|  |                    |



### VCV 1 vacuum control valve manual

 Allows for adjusting the set vacuum value on the manual manometer.

Ident. No. 0020004850



### VCV 2 vacuum control valve digital

 Allows for adjusting the set vacuum value on the digital manometer.

Ident. No. 0020004893

#### N 920 SPEED CONTROL PUMP Allows high suction speed even in the low-vacuum range.

Details N 920\*, Ident. No. 0003919100 | Ident. No. 0004406000

| Max. flow rate                       | 20 l / min         |
|--------------------------------------|--------------------|
| Ultimate vacuum                      | 2 mbar             |
| Operating pressure                   | 0.5 bar            |
| Connectors for tube                  | ID 9 mm            |
| Permissible ambient temperature      | +5 to +40 °C       |
| Dimensions (W $\times$ D $\times$ H) | 324 × 158 × 226 m  |
| Weight                               | 8.6 kg             |
| Motor protection                     | IP 20              |
| Voltage / Frequency                  | 90 - 230 V / 50/60 |
|                                      |                    |

\* Additional external vacuum controller required. | For use with RV 8, RV 10 digital and control.

### VSS 1

### vacuum safety set

 The Woulff bottle is a condensate trap connected ahead of the vacuum pump to prevent vapors from being released into the air.





VSS 1 stand and glassware

Rotary Evaporators





# **RV 8 V complete solution**

/// Entry-level system







## **RV 10 control auto solution**

/// Package offer



Rotary Evaporators

SAFE ENERGY WITH STANDBY-MODE IF NO DESTILLATION IS RUNNING!

# FLEX-ibility with the IKA RV FLEX packages

/// FLEX packages

The IKA FLEX packages enable the FLEX-ibility of customizing the glassware setup for specific applications.



**Step 1** Choose your FLEX base model.



Step 2 Select individual glassware: > condenser

- > evaporation flask
- › receiving flask

### RV 8 FLEX package

- > RV 8 drive
- > HB 10 heating bath
- clamps for glassware, incl. Woulff bottle.

Ident. No. 0010002166

#### RV 10 digital FLEX package

- > RV 10 digital drive> HB 10 heating bath
- clamps for glassware, incl. Woulff bottle.
- Ident. No. 0008040500



**Step 3** Configured RV 8 FLEX Package with selected glassware.

#### RV 10 control FLEX package

- > RV 10 control drive
- > HB 10 heating bath
- > clamps for glassware,
- incl. Woulff bottle.
- > RV 10.4002 magnetic valve

Ident. No. 0008038100

Rotary Evaporators

#### RV 10 control FLEX auto package

- > RV 10 control drive
- > HB 10 heating bath
- clamps for glassware, incl. Woulff bottle.
- > N 920 speed controlled pump

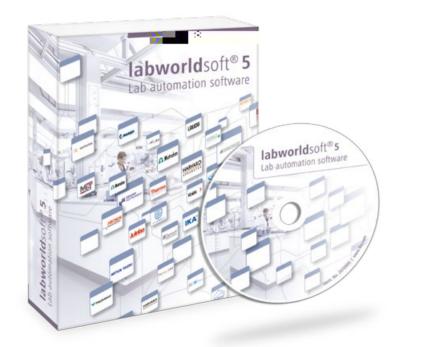
Ident. No. 0008038200

### labworldsoft<sup>®</sup> software

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This makes the automation of your laboratory experiments and processes much more easy and efficient.



#### labworldsoft® software

Ident. No. 0004720000

#### HARDWARE AND SOFTWARE REQUIREMENTS /// labworldsoft® software, Ident. No. 0004720000

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Pentium processor with at least 16 MB RAM, 8 MB free hard disc memory, VGA-Display: monochrome with at least 16 levels of gray or color, Windows 95/98/2000/NT/ME/XP/7 and com ports can be upgraded for certain requirements.

### **IKA Service** /// FAO

What minimum vacuum can be reached with the RV 10 system (with coated glassware)? If all vacuum connections are sealed vacuum tight and the vacuum system is strong enough, down to 1mBar.

Is it better to use a vertical or a diagonal condenser? It does not matter for the application. Both condensers have the same cooling surface and power.

What is the diameter of the hose to refill the evaporating flask with medium in the RV 10 system and what is it made of? The hose has a diameter of 5 mm and is made of PTFE (Teflon).

Is there a warning system when the heating bath HB 10 is still hot?

Is it possible to move the heating bath HB 10 in the RV 10 system? Yes, it can be moved 50 mm horizontally and can also be used as a stand-alone unit.

Which rotary evaporator system is the right one for my application? What accessories are needed? On www.ika.com you can use the RV 10 configurator that guides you through the process of choosing the appropriate system for your application needs.

Can I perform a continuous distillation with IKA rotary evaporator system and 3 I flask? Yes, even with a 3 liter receiving flask you can do a continuous distillation. Simply use the PTFE tube that comes with the glassware. Use this by opening up the vacuum shut-off valve to refill while under vacuum. The loss of vacuum pressure is little and will be stabilized by the vacuum pump.

Is it necessary to measure vapor temperature inside the flask? No, IKA rotary evaporators are controlled by measuring the temperature of the cooling water flow.

I work with samples that foam easily. How can I prevent foaming over into the cooling coil? Simply use our foam brake/bump trap listed under our accessories. It stops foam from entering the cooling coil or receiving flask.

#### **APPLICATION SUPPORT**

For questions regarding applications and processes, you can call our free hotline number: 00 8000 4522777 (00 8000 IKAAPPS)\* eMail: applicationsupport@ika.de

Monday – Thursday from 8:30–16:30 CET Friday from 8:30-15:30 CET

### Yes. The message "HOT" will be blinking for as long as the water bath temperature exceeds +60 C.

## **Customizing Center**

/// www.ika.com/customizingcenter

It is important that IKA products perform in real laboratory applications. We have a special program of product solutions that are customized to your individual needs. If you cannot find the right device in our standard product range, please send us the details of the specification you need using the online form. Our team will check the feasibility of the specification and offer you a solution.

Please visit **www.ika.com/customizingcenter** to have look at the product modification requests that we have already implemented.

# Trial units

/// Rotary evaporators

If you are interested in our rotary evaporators and would like to try it for your application, please contact us at sales@ika.net for a free one week trial. We look forward to hearing from you.

# 30 day money back guarantee

/// Contact

Purchase our unit and if it doesn't work for your application, you can return it to IKA. Contact us at sales@ika.net.

### Worldwide service network

/// Direct contacts in your region

Our dedicated team of engineers provides comprehensive technical service on a global level. If you have any questions, please do not hesitate to contact IKA directly. Alternatively, you can get in touch with your dealer.

IKA guarantees that spare parts will be available for 10 years. In the event of any faults with a device, or if you have any technical questions regarding our products, their maintenance or replacement parts, please call us at **00 8000 4524357** (00 8000 IKAHELP) or send an eMail to service@ika.de

# **IKA Application Support**

/// www.ika.com/applicationsupport

Our Application Center spans 400 m<sup>2</sup> and is equipped with the most modern facilities for presenting and testing laboratory equipment and processes. The Center brings us even closer to our customers and improves our service. If you are interested, you can use our facilities to test processes that include stirring, shaking, dispersing, grinding, heating, analysis and distillation.

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Send us your sample. We will run a test with the suitable device within 48 hours.



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# **IKA** designed for scientists

#### IKA-Werke GmbH & Co. KG

Janke & Kunkel-Straße 10, 79219 Staufen, Germany Phone: +49 7633 831-0, Fax: +49 7633 831-98 eMail: sales@ika.de

### /// WORLDWIDE

#### USA

IKA Works, Inc. Phone: +1 910 452-7059 eMail: sales@ika.net

#### MALAYSIA

IKA Works (Asia) Sdn Bhd Phone: +60 3 6099-5666 eMail: sales.lab@ika.my

#### JAPAN

IKA Japan K.K. Phone: +81 6 6730 6781 eMail: info\_japan@ika.ne.jp

#### KOREA IKA Korea Ltd. Phone: +82 2 2136 6800 eMail: info@ika.kr

CHINA IKA Works Guangzhou Phone: +86 20 8222 6771 eMail: info@ika.cn

#### INDIA

IKA India Private Limited Phone: +91 80 26253 900 eMail: info@ika.in

#### BRASIL

IKA do Brasil Phone: +55 19 3772-9600 eMail: info@ika.net.br

#### POLAND

IKA Poland Sp. z o.o. Phone: +48 22 201 99 79 eMail: sales.poland@ika.com

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Prices are valid until December 31, 2017. All prices exclude VAT. IKA reserves the right to modify products, part numbers, and pricing.

Drive: Protection class according to DIN EN 60529: IP 20 Heating bath: Protection class according to DIN EN 60529: IP 21